

BOILERS.

TUBULAR
LOCOMOTIVE
HORIZONTAL
VERTICAL

Atlas Engine Works.
Indianapolis.

BOILERS.

The Standard Boilers herein offered to the trade are carried in stock for immediate shipment.

The several designs have been approved as the best known after many years studying requirements of service, and after much experience in manufacturing thousands of boilers.

In Boilers 36 inches diameter and above, all longitudinal seams are double riveted.

The details of construction shown on the pages following demonstrate the purpose to build for the very best results.

The right is reserved to change designs at any time it is deemed advisable.

ATLAS HORIZONTAL TUBULAR BOILERS.

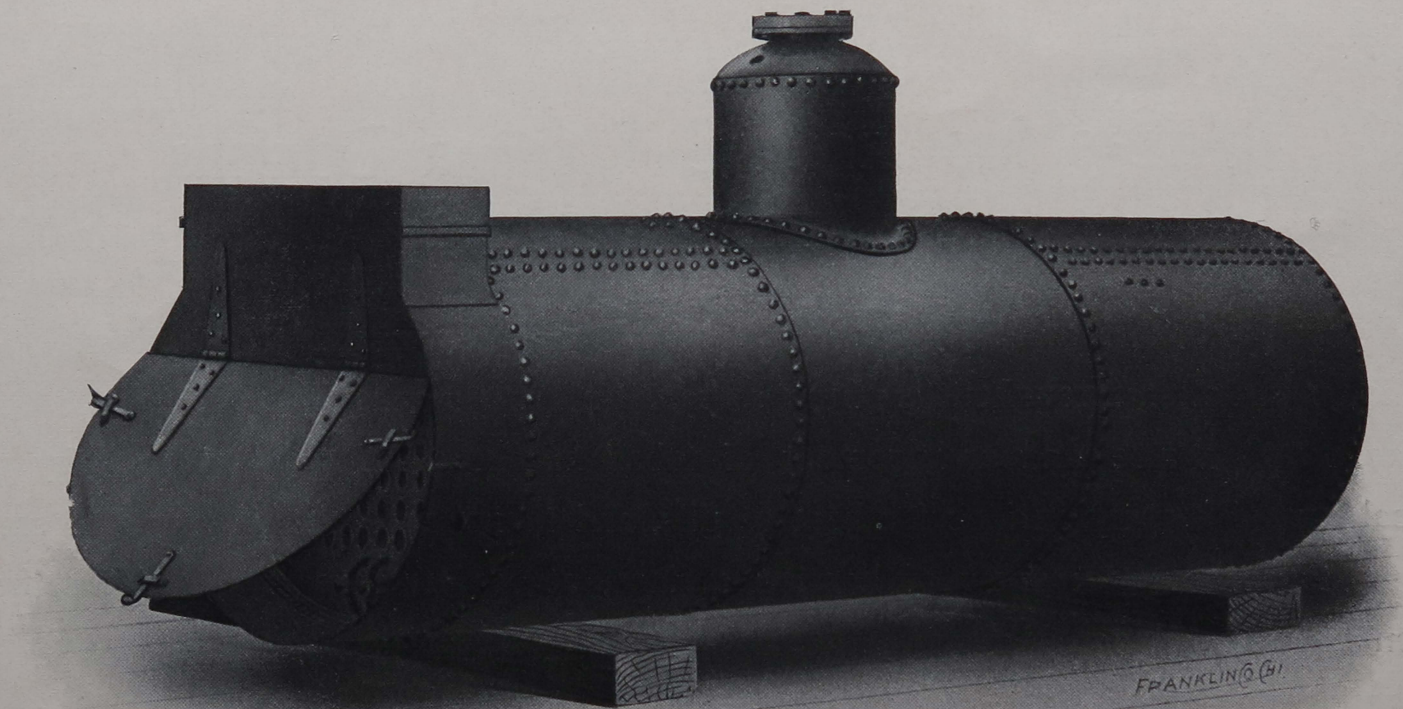
On pages 4, 5, 6, 7 and 9 is shown a Standard line of Return Tubular Boilers.

The construction throughout is of the very best materials and workmanship.

The number, size and arrangement of tubes in each Boiler is governed by the most economical use of heating surface for best results, and in no case is a multitude of small tubes crowded in to make great show of heating surface, at the expense of good draft, free water circulation and convenience of cleaning.

The Bracing exceeds the requirements of modern practice.

Each Boiler is designed for a constant working pressure of 100 pounds, and a test of 150 pounds cold water pressure is applied before shipment.



ATLAS HORIZONTAL TUBULAR BOILER WITH FIXED DOME. CLASS L.

ATLAS HORIZONTAL TUBULAR BOILERS. CLASS L.

WITH FIXED DOME.

SPECIFICATIONS FOR SINGLE SETTING.

ESTIMATE NUMBER	NOMINAL	SHELL		DEPTH OF SMOKE BOX IN.	MEAN THICKNESS		DOME		SIZE OF STEAM OUTLET IN.	TUBES			TOTAL HEATING SURFACE SQ. FT.	TOTAL GRATE SURFACE SQ. FT.	STACK		SHIPPING WEIGHT Pounds Approximate		
	RATED	DIAM. IN.	LENGTH FT.		SHELL IN.	HEADS IN.	DIAM. IN.	HEIGHT IN.		NO.	DIAM. IN.	LENGTH FT.			DIAM. IN.	LENGTH FT.	BOILER ONLY	FIXTURES ONLY	BOILER AND FIXTURES
	HORSE																		
	POWER																		
15 L	15	36	8	15	1/4	3/8	18	20	2	26	3	8	214	5.83	18	30	2376	1624	4000
20 L	20	36	10	15	1/4	3/8	18	20	2	26	3	10	266	8.33	18	30	2785	1715	4500
25 L	25	36	12	15	1/4	3/8	18	20	2 1/2	26	3	12	318	9.44	18	35	3129	1971	5100
30 L	30	40	12	15	1/4	3/8	20	22	2 1/2	34	3	12	404	11.11	20	40	3727	2273	6000
35 L	35	42	12	15	1/4	7/16	20	22	2 1/2	40	3	12	464	12.83	22	40	4151	2349	6500
40 L	40	46	12	15	9/32	7/16	24	24	3	42	3	12	491	14.58	22	40	4731	2561	7300
45 L	45	48	12	15	9/32	7/16	24	24	3	48	3	12	551	15.28	24	40	5450	2650	8100

Each Boiler is furnished with Dome, Smoke Box Extension, Smoke Head Door and Stack Saddle, Fire Front (Class B), Grate Bars, Bearing Bars, Back Stand, Back Arch Frames, Round Soot Pit Door and Frame, Safety Valve, Steam Gage and Siphon, Glass Water Gage and Gage Cocks, Check Valve, Stop Valve, Blow-Off Cock, Whistle, Smoke Stack and Guys.

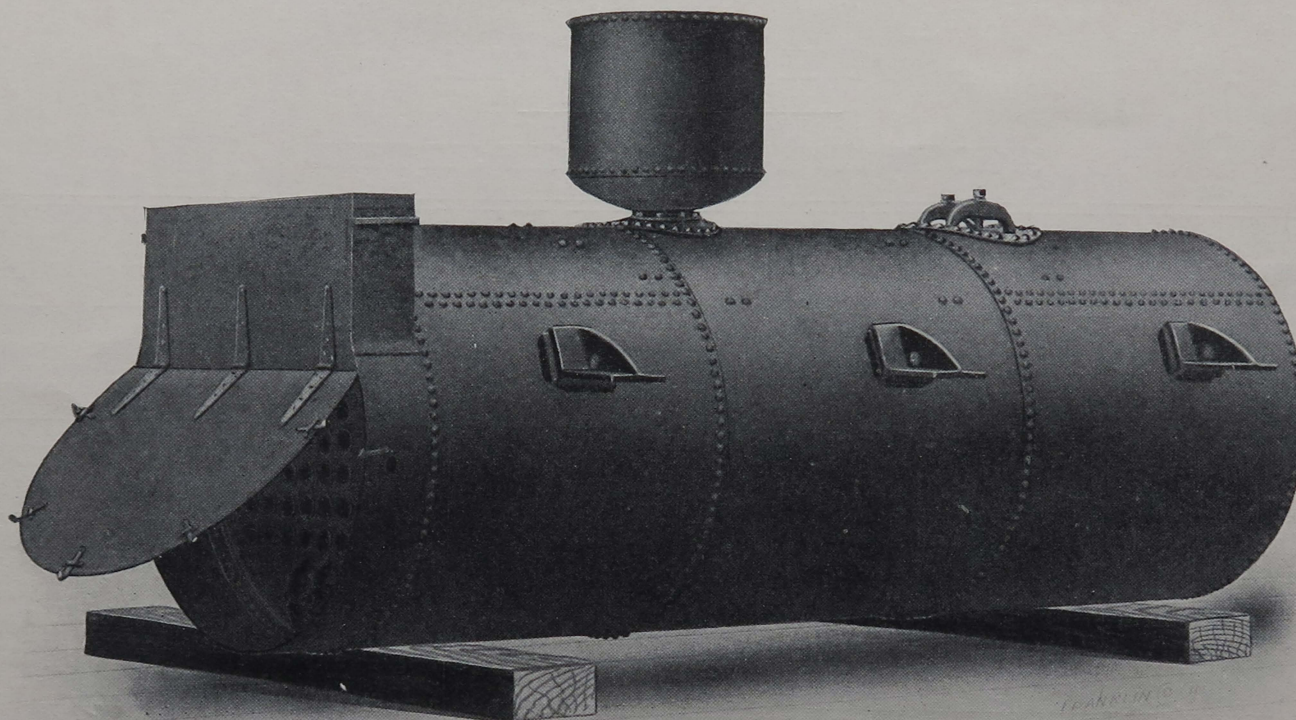
Delivered on cars at our Works in Indianapolis.

Everything furnished with the above Outfits is particularly mentioned in the Specifications. Anything else ordered will be charged for extra.

NOTE.

Fixed or Independent Domes, or Dry Pipes without Domes, can be furnished.

All Plate is Flange Steel, guaranteed by the makers to be 60,000 pounds tensile strength and to turn down double cold without fracture.



ATLAS HORIZONTAL TUBULAR BOILER WITH INDEPENDENT DOME. CLASSES M AND N.

ATLAS HORIZONTAL TUBULAR BOILERS. CLASSES M AND N. WITH INDEPENDENT DOME.

SPECIFICATIONS FOR SINGLE SETTING.

ESTIMATE NUMBER	NOMINAL	SHELL		DEPTH OF SMOKE	MEAN THICKNESS		DOME		SIZE OF STEAM	TUBES			TOTAL HEATING	TOTAL GRATE	STACK		SHIPPING WEIGHT Pounds Approximate		
	RATED	DIAM.	LENGTH	BOX	SHELL	HEADS	DIAM.	HEIGHT	OUTLET	NO.	DIAM.	LENGTH	SQ. FT.	SQ. FT.	DIAM.	LENGTH	BOILER ONLY	FIXTURES ONLY	BOILER AND FIXTURES
	HORSE POWER																		
50 M	50	48	14	15	$\frac{9}{32}$	$\frac{7}{16}$	24	24	3	40	3 1/2	14	630	15.98	24	40	6498	2602	9100
55 M	55	52	14	15	$\frac{5}{16}$	$\frac{7}{16}$	28	26	3 1/2	44	3 1/2	14	693	16.66	26	40	7217	3383	10600
60 M	60	54	14	15	$\frac{5}{16}$	1/2	28	26	3 1/2	46	3 1/2	14	721	18.05	26	40	8070	3530	11600
70 N	70	54	16	15	$\frac{5}{16}$	1/2	28	26	3 1/2	40	4	16	817	20.83	26	40	9348	3652	13000
75 M	75	60	14	15	$\frac{11}{32}$	1/2	32	32	4	62	3 1/2	14	940	21.52	30	40	9750	3950	13700
85 N	85	60	16	15	$\frac{11}{32}$	1/2	32	32	4 1/2	52	4	16	1045	22.22	30	40	11053	4047	15100
100 N	100	66	16	15	$\frac{3}{8}$	1/2	32	32	4 1/2	64	4	16	1265	24.88	36	40	13807	4993	18800
125 N	125	72	16	15	$\frac{7}{16}$	1/2	32	32	5	82	4	16	1578	29.50	40	40	16207	5493	21700
150 N	150	72	18	15	$\frac{7}{16}$	1/2	32	32	5	82	4	18	1775	29.50	40	40	17707	5493	23200

Each Boiler is furnished with Dome, Smoke Box Extension, Smoke Head Door and Stack Saddle, Fire Front (Class C), Grate Bars, Bearing Bars, Wings, Back Arch Frames, Round Soot Pit Door and Frame, Safety Valve, Steam Gage and Siphon, Glass Water Gage and Gage Cocks, Check Valve, Stop Valve, Blow-Off Cock, Whistle, Smoke Stack and Guys.

Delivered on cars at our Works in Indianapolis.

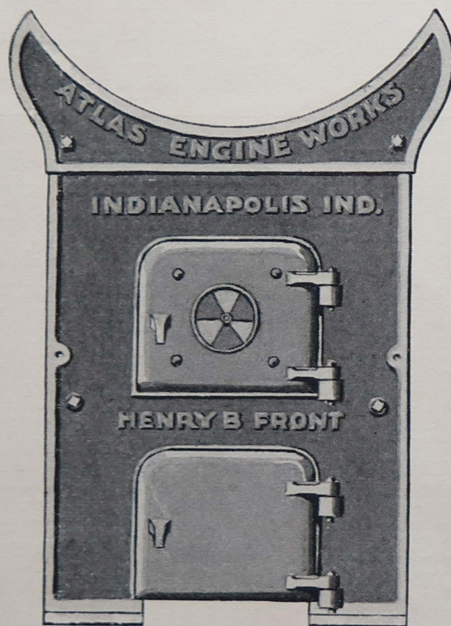
Everything furnished with the above Outfits is particularly mentioned in the Specifications. Anything else ordered will be charged for extra.

NOTE.

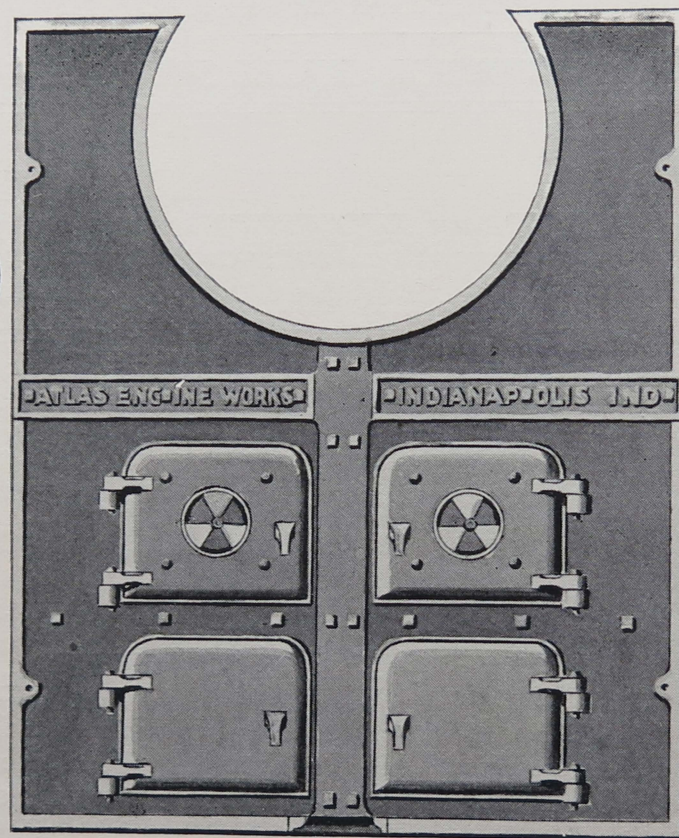
Independent or Fixed Domes, or Dry Pipes without Domes, can be furnished.

The 48" x 14' Boiler, Estimate Number 50M, is furnished with Fixed Dome and Class B Fire Front unless otherwise specified.

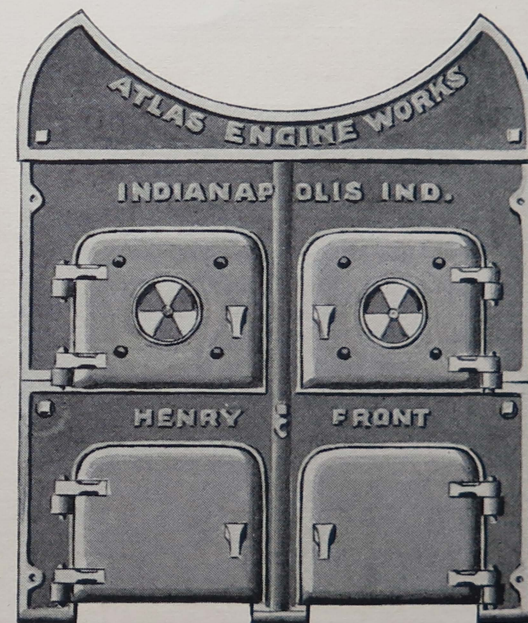
All Plate is Flange Steel, guaranteed by the makers to be 60,000 pounds tensile strength and to turn down double cold without fracture.



HENRY B.



THREE QUARTER.



HENRY C.

ATLAS FIRE FRONTS.

ATLAS HORIZONTAL TUBULAR BOILERS. CLASSES M AND N.

WITH INDEPENDENT DOME.

SPECIFICATIONS FOR DOUBLE SETTING.

ESTIMATE NUMBER	NOMINAL	SHELL		DEPTH OF SMOKE	MEAN THICKNESS		DOME		SIZE OF STEAM	TUBES			TOTAL HEATING	TOTAL GRATE	STACK		SHIPPING WEIGHT Pounds Approximate		
	RATED	DIAM. IN.	LENGTH FT.	BOX IN.	SHELL IN.	HEADS IN.	DIAM. IN.	HEIGHT IN.	OUTLET IN.	NO.	DIAM. IN.	LENGTH FT.	SURFACE SQ. FT.	SURFACE SQ. FT.	DIAM. IN.	LENGTH FT.	BOILERS ONLY	FIXTURES ONLY	BOILERS AND FIXTURES
	HORSE POWER																		
110 M	110	52	14	15	$\frac{5}{16}$	$\frac{7}{16}$	28	26	5	44	$3\frac{1}{2}$	14	1386	33.32	34	40	14434	6866	21300
120 M	120	54	14	15	$\frac{5}{16}$	$\frac{1}{2}$	28	26	5	46	$3\frac{1}{2}$	14	1442	36.10	36	40	16140	7660	23800
140 N	140	54	16	15	$\frac{5}{16}$	$\frac{1}{2}$	28	26	5	40	4	16	1634	41.66	36	40	18696	7904	26600
150 M	150	60	14	15	$\frac{11}{32}$	$\frac{1}{2}$	32	32	6	62	$3\frac{1}{2}$	14	1880	43.04	40	40	19500	8600	28100
170 N	170	60	16	15	$\frac{11}{32}$	$\frac{1}{2}$	32	32	7	52	4	16	2090	44.44	40	40	22106	8894	31000
200 N	200	66	16	15	$\frac{3}{8}$	$\frac{1}{2}$	32	32	7	64	4	16	2530	49.76	44	40	27614	9986	37600
250 N	250	72	16	15	$\frac{7}{16}$	$\frac{1}{2}$	32	32	7	82	4	16	3156	59.00	48	40	32414	10986	43400
300 N	300	72	18	15	$\frac{7}{16}$	$\frac{1}{2}$	32	32	7	82	4	18	3550	59.00	48	40	35414	10986	46400

Each Boiler is furnished with Dome, Smoke Box Extension, Smoke Head Door and Stack Saddle, Fire Front (Class C), Grate Bars, Bearing Bars, Wings, Back Arch Frames, Round Soot Pit Door and Frame, Safety Valve, Steam Gage and Siphon, Glass Water Gage and Gage Cocks, Check Valve, Stop Valve and Blow-Off Cock.

With the above Outfits, Smoke Connection uniting these Boilers with one Stack and Guys and one Whistle only, are included.

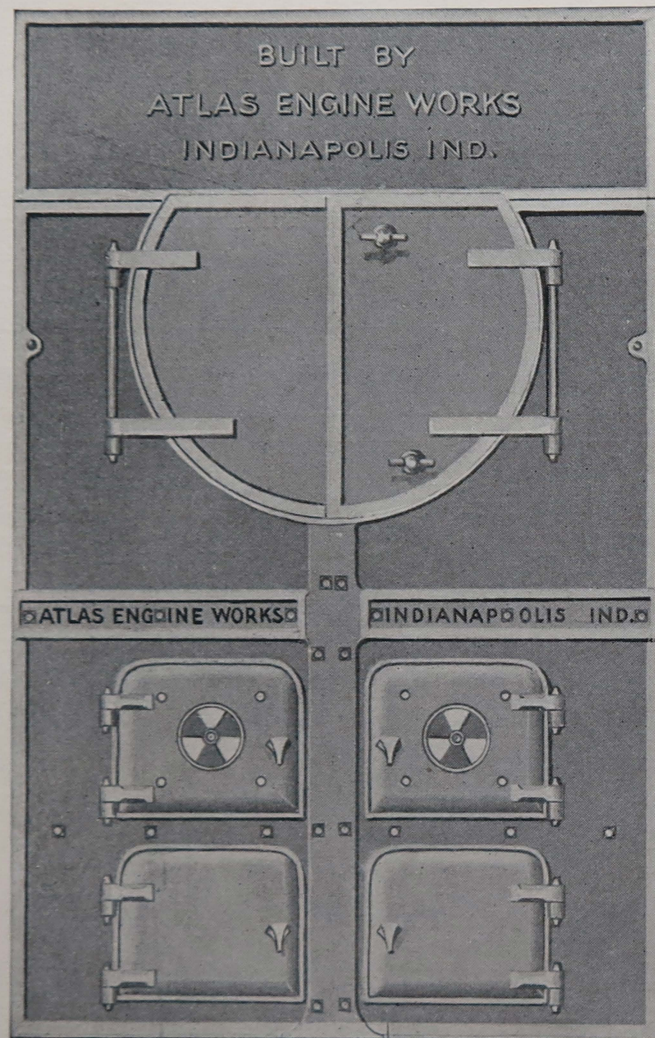
Delivered on Cars at our Works in Indianapolis.

Everything furnished with the above Outfits is particularly mentioned in the Specifications. Anything else ordered will be charged for extra.

NOTE.

Independent or Fixed Domes, or Dry Pipes without Domes, can be furnished.

All Plate is Flange Steel, guaranteed by the makers to be 60,000 pounds tensile strength and to turn down double cold without fracture.



PLAIN FULL SQUARE.



ORNAMENTAL FULL SQUARE.

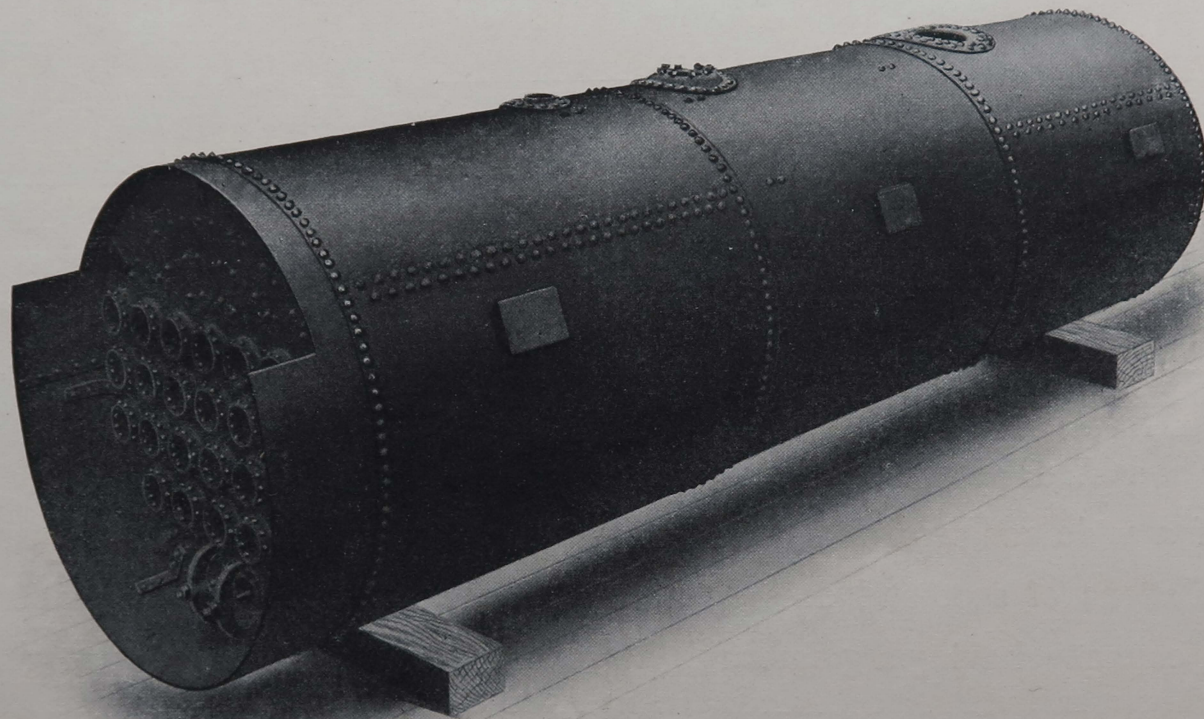
ATLAS FIRE FRONTS.

ATLAS SIX-INCH FLUE BOILERS.

The illustration and specifications on pages 12 and 13 describe several sizes of Six-inch Flue Boilers which in material and construction maintain the high standards mentioned in connection with the Horizontal Tubular Boilers detailed on the preceding pages.

They are very desirable in localities where the feed water is impure, particularly where it is muddy, as the size and arrangement of the large lap welded flues render the interior of the Boiler easily accessible and afford ample opportunity for cleaning. The large flues are also adapted to the economic use of a wide range of fuel, presenting as they do surfaces readily brushed and less liable to accumulations of soot and dust. Although they occupy slightly more floor space than Boilers of equal capacity having a greater number of smaller tubes, these advantages more than compensate for the extra space required in the setting and contribute to their durability and popularity.

Each Boiler is designed for a constant working pressure of 100 pounds, and a test of 150 pounds cold water pressure is applied before shipment.



ATLAS SIX-INCH FLUE BOILER. CLASS W.

ATLAS SIX-INCH FLUE BOILERS. CLASS W.

SPECIFICATIONS FOR SINGLE SETTING.

ESTIMATE NUMBER	NOMINAL	SHELL		DEPTH OF	MEAN THICKNESS		DOME		SIZE OF	TUBES			TOTAL	TOTAL	STACK		SHIPPING WEIGHT Pounds Approximate		
	RATED	DIAM. IN.	LENGTH FT.	SMOKE BOX IN.	SHELL IN.	HEADS IN.	DIAM. IN.	HEIGHT IN.	STEAM OUTLET IN.	NO.	DIAM. IN.	LENGTH FT.	HEATING SURFACE SQ. FT.	GRATE SURFACE SQ. FT.	DIAM. IN.	LENGTH FT.	BOILER ONLY	FIXTURES ONLY	BOILER AND FIXTURES
	HORSE																		
	POWER																		
50 W	50	46	20	15	$\frac{9}{32}$	$\frac{7}{16}$	24	24	3	10	6	20	474	15.97	22	40	6283	2717	9000
60 W	60	48	20	15	$\frac{9}{32}$	$\frac{7}{16}$	24	24	$3\frac{1}{2}$	12	6	20	544	18.05	24	40	7339	2861	10200
70 W	70	56	20	15	$\frac{5}{16}$	$\frac{1}{2}$	28	26	$3\frac{1}{2}$	14	6	20	635	20.83	26	40	9200	3700	12900
80 W	80	60	20	15	$\frac{11}{32}$	$\frac{1}{2}$	32	32	$4\frac{1}{2}$	16	6	20	712	21.87	30	40	10361	3939	14300
100 W	100	66	20	15	$\frac{3}{8}$	$\frac{1}{2}$	32	32	$4\frac{1}{2}$	20	6	20	859	24.88	36	40	12916	4884	17800
125 W	125	72	20	15	$\frac{7}{16}$	$\frac{1}{2}$	32	32	5	26	6	20	1066	29.50	40	40	14916	5384	20300

Each Boiler is furnished with Dome, Smoke Box Extension bolted on, Smoke Head Door and Stack Saddle, Fire Front (Class C), Grate Bars, Bearing Bars, Wings, Back Arch Frames, Round Soot Pit Door and Frame, Safety Valve, Steam Gage and Siphon, Glass Water Gage and Gage Cocks, Check Valve, Stop Valve, Blow-Off Cock, Whistle, Smoke Stack and Guys.

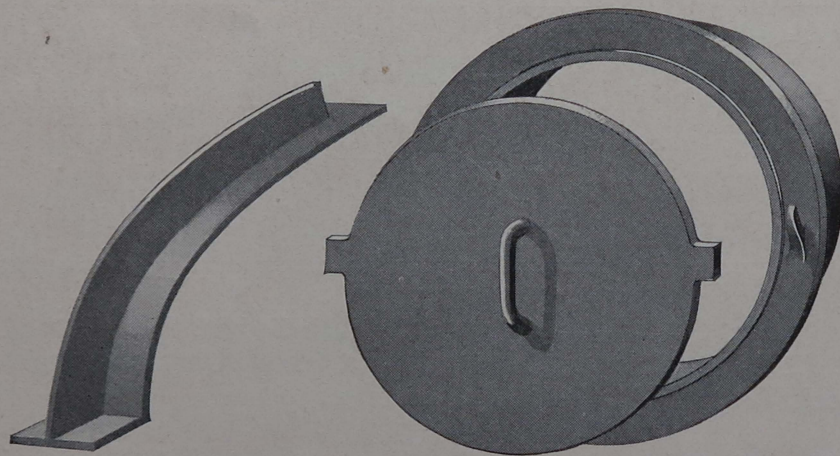
Delivered on Cars at our Works in Indianapolis.

Everything furnished with the above Outfits is particularly mentioned in the Specifications. Anything else ordered will be charged for extra.

NOTE.

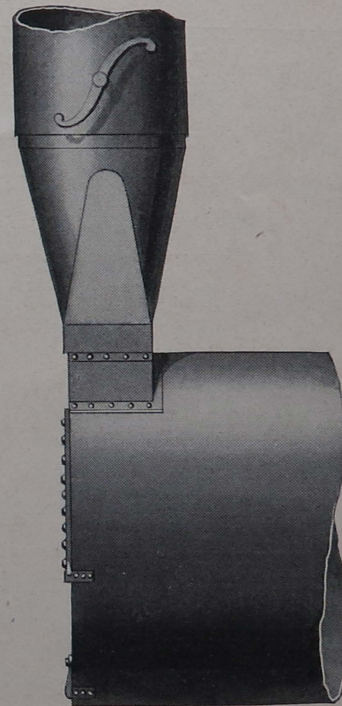
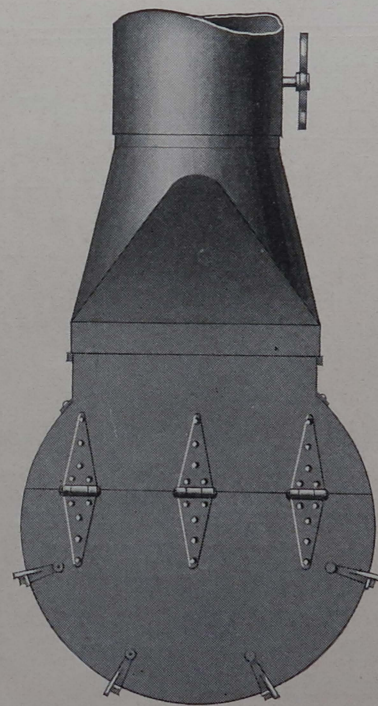
Independent or Fixed Domes, or Dry Pipes without Domes, can be furnished.

All Plate is Flange Steel, guaranteed by the makers to be 60,000 pounds tensile strength and to turn down double cold without fracture.



BACK ARCH FRAME.

SOOT PIT DOOR AND FRAME.



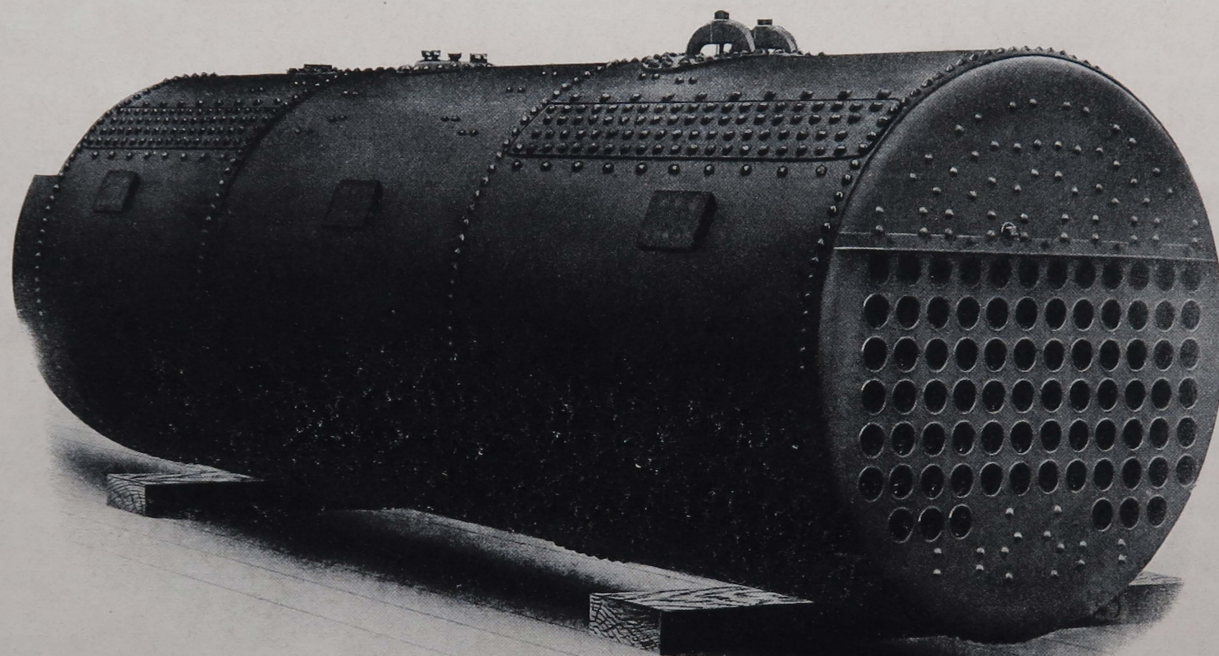
SINGLE SMOKE CONNECTION.

ATLAS HIGH PRESSURE TUBULAR BOILERS.

FOR 150 POUNDS WORKING PRESSURE.

This line of Boilers, illustrated and described on pages 16 and 17, is designed for extreme high pressures, and is well adapted for use with Compound Engines. The horizontal seams are made with the triple-riveted butt strap joint, having a covering strip inside and out, so constructed that it retains $87\frac{1}{2}$ per cent. of the strength of the solid metal. The heads are thoroughly braced with solid crow foot bracing, carried well back on the shell, making the angle very slight, and carefully placed so that all may carry a uniform tension. In addition to the crow foot braces there are rods running through attached to stirrups riveted to the inside of the heads, thus doing away with the objectionable feature of through-going bolts fastened by lock nuts and washers inside and out, with their liability to leak. There are separate openings for the steam and safety valve connections, reinforced by Flange Steel Nozzles. The blow-off opening is reinforced in like manner, and the threads are cut in the reinforcing nozzles instead of in the boiler shell. The Man Heads are extra large and fitted to accurately faced flanged openings; in short, every detail of design, proportion, bracing, riveting, material and workmanship entering into this line of Boilers is made to meet the requirements of a constant working pressure as high as 150 pounds.

A test of 200 pounds cold water pressure is applied to each High Pressure Boiler before shipment.



ATLAS HIGH PRESSURE TUBULAR BOILER. CLASS X.

ATLAS HIGH PRESSURE TUBULAR BOILERS. CLASS X.

FOR 150 POUNDS WORKING PRESSURE.

SPECIFICATIONS FOR SINGLE SETTING.

ESTIMATE NUMBER	NOMINAL	SHELL		DEPTH OF SMOKE BOX IN.	MEAN THICKNESS		OPENINGS			TUBES			TOTAL	TOTAL	STACK		SHIPPING WEIGHT Pounds Approximate		
	RATED	DIAM. IN.	LENGTH FT.		SHELL IN.	HEADS IN.	SAFETY VALVE IN.	STEAM IN.	BLOW OFF IN.	NO.	DIAM. IN.	LENGTH FT.	HEATING	GRATE	DIAM. IN.	LENGTH FT.	BOILER ONLY	FIXTURES ONLY	BOILER AND FIXTURES
	HORSE												SURFACE	SURFACE					
	POWER												SQ. FT.	SQ. FT.					
70 X	70	54	16	15	$\frac{39}{100}$	$\frac{5}{10}$	2½	4	2	40	4	16	817	20.83	26	40	11147	5253	16400
85 X	85	60	16	15	$\frac{43}{100}$	$\frac{5}{10}$	3	4½	2	52	4	16	1045	22 22	30	40	13482	5618	19100
100 X	100	66	16	15	$\frac{48}{100}$	$\frac{5}{10}$	3½	4½	2	64	4	16	1265	24.88	36	40	16567	6633	23200
125 X	125	72	16	15	$\frac{53}{100}$	$\frac{5}{10}$	4	5	2	78	4	16	1511	29.50	40	40	19396	7304	26700
140 X	140	72	18	15	$\frac{53}{100}$	$\frac{5}{10}$	4	6	2	78	4	18	1700	29.50	40	40	21687	7313	29000

Each Boiler is furnished with Extension Shell to form Smoke Box, Plates and Rollers for Boiler Wall Support, Plain Full Square Fire Front, Grate Bars, Grate Bearing Bars, Wings, Back Arch Frames, Breeching Frame, Round Top Soot Pit Door and Frame, Pop Safety Valve, 8½ inch Brass Case Steam Gage, "C" Water Gage Barrel and Connections, Glass Water Gage, Gage Cocks, Check Valve, Stop Valve, Asbestos-Packed Blow-Off Cock, Whistle, Smoke Stack and Guys.

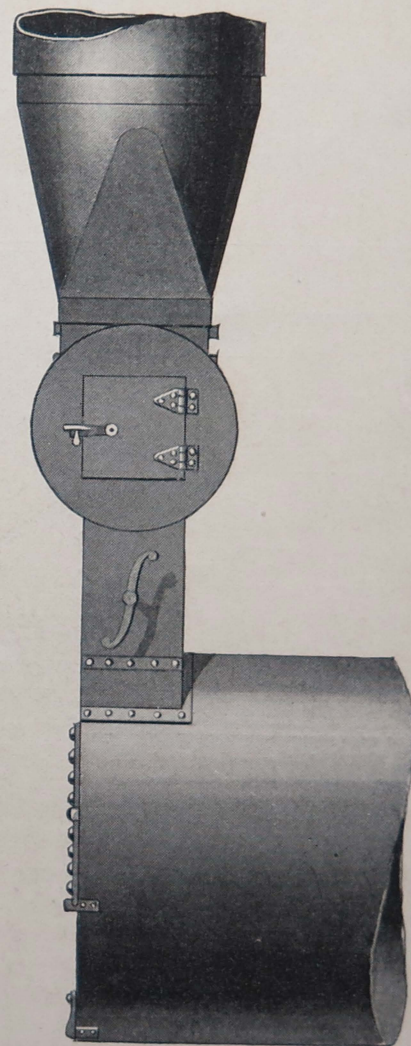
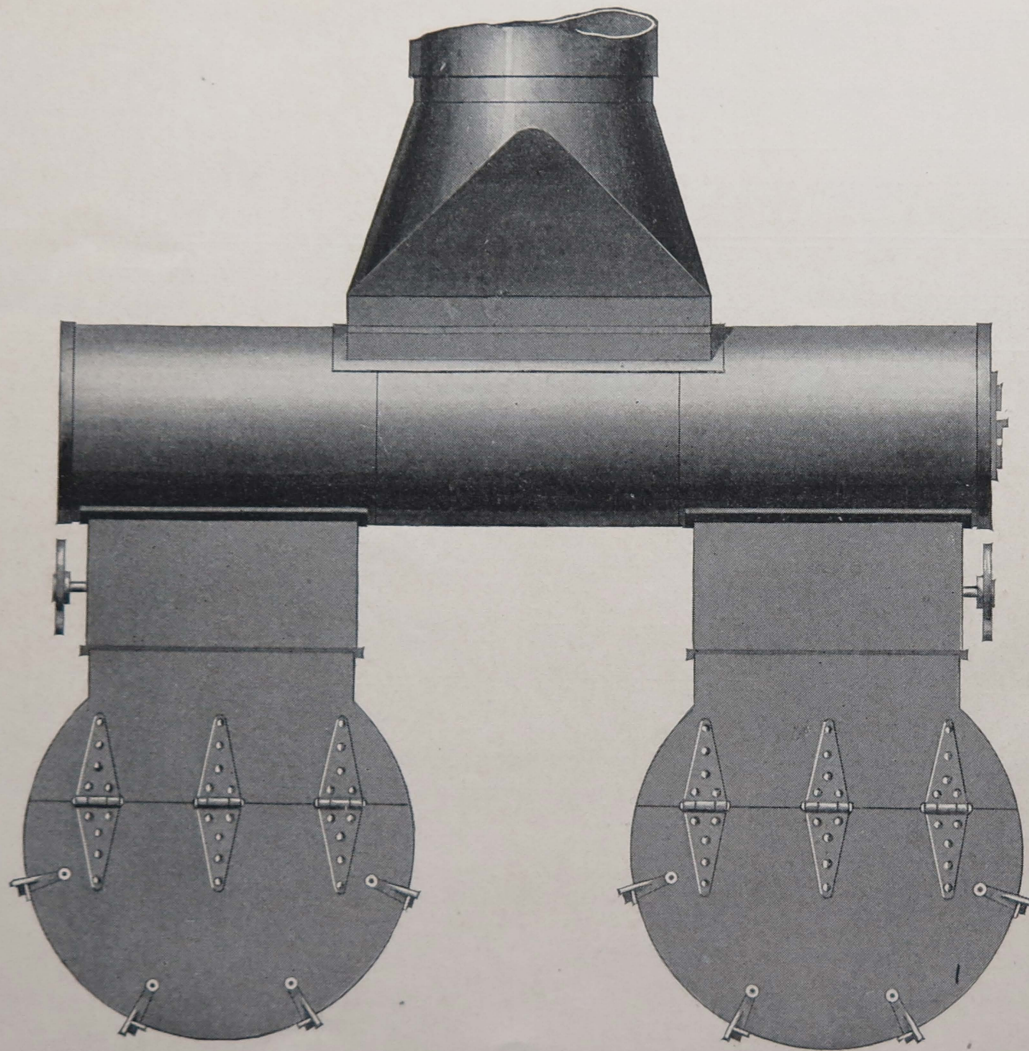
Delivered on Cars at our Works in Indianapolis.

Everything furnished with the above Outfits is particularly mentioned in the Specifications. Anything else ordered will be charged for extra.

NOTE.

Independent Domes, or Dry Pipes without Domes, can be furnished.

All Plate is Flange Steel, guaranteed by the makers to be 60,000 pounds tensile strength and to turn down double cold without fracture.



ATLAS DOUBLE SMOKE CONNECTION.

ATLAS LOCOMOTIVE BOILERS.

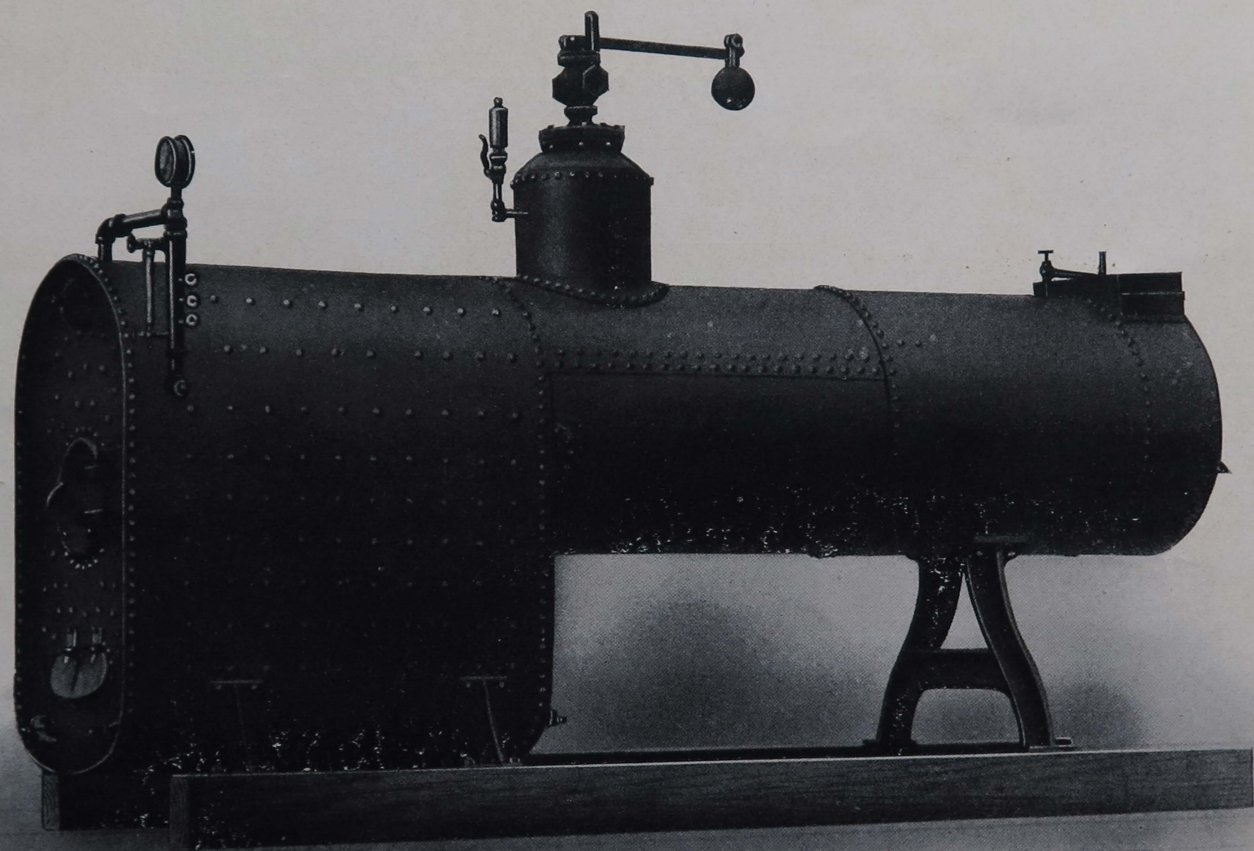
WITH WATER BOTTOM.

The illustration and table of specifications on pages 20 and 21 present the best results of long experience and very special attention to the construction of Locomotive Boilers in the effort to combine good workmanship and material with the best design for efficiency and economy in operation.

The liberal dimensions of fire box, length of barrel, size, number and arrangement of tubes, all combine to produce better proportions, larger and more efficient surfaces than are usually offered in Boilers of this type.

Quality of plate, tubes, stay-bolts, rivets and bracing is kept sacred, and cost is made secondary to safety and reliability.

Each Boiler is designed for a constant working pressure of 100 pounds, and a test of 150 pounds cold water pressure is applied before shipment.



ATLAS LOCOMOTIVE BOILER WITH WATER BOTTOM. CLASS P.

ATLAS LOCOMOTIVE BOILERS. CLASS P.

WITH WATER BOTTOM.

SPECIFICATIONS.

ESTIMATE NUMBER	NOMINAL RATED HORSE POWER	SHELL		FIRE BOX			DOME		SIZE OF STEAM OUTLET IN.	TUBES			TOTAL HEATING SURFACE SQ. FT.	STACK		SHIPPING WEIGHT Pounds Approximate		
		DIAM. IN.	LENGTH OVER ALL FT. IN.	LENGTH IN.	WIDTH IN.	HEIGHT IN.	DIAM. IN.	HEIGHT IN.		NO.	DIAM. IN.	LENGTH FT. IN.		DIAM. IN.	LENGTH FT.	BOILER ONLY	FIXTURES ONLY	BOILER AND FIXTURES
10 P	10	28	9 5	30	23	36	15	16	1 ½	25	2 ½	5 6	127	10	15	2754	446	3200
15 P	15	32	11 0	42	27	40	15	16	2	34	2 ½	6 0	188	12	15	3829	671	4500
20 P	20	34	12 8	48	29	45	15	16	2	40	2 ½	7 0	251	12	20	4902	798	5700
25 P	25	36	14 0	52	32	48	18	20	2 ½	45	2 ½	8 0	315	14	25	5832	968	6800
30 P	30	40	15 2	54	36	48	20	22	2 ½	49	2 ½	9 0	376	18	35	6636	1364	8000
40 P	40	42	16 4	54	37	60	20	22	3	62	2 ½	10 0	510	20	40	8445	1555	10000

Each Boiler, on Skids, is furnished with Dome, Grate Bars, Safety Valve, Steam Gage and Siphon, Glass Water Gage and Gage Cocks, Check Valve, Stop Valve, Blow-Off Cock, Whistle, Smoke Stack and Guys.

Delivered on cars at our Works in Indianapolis.

Everything furnished with the above Outfits is particularly mentioned in the Specifications. Anything else ordered will be charged for extra.

NOTE.

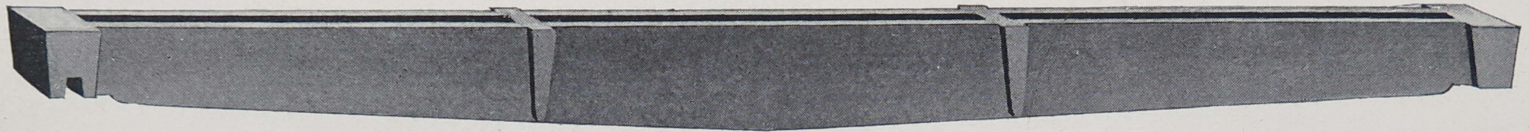
Fixed or Independent Domes, or Dry Pipes without Domes, can be furnished.

Any of the above Boilers can be mounted on Wheels, when so ordered.

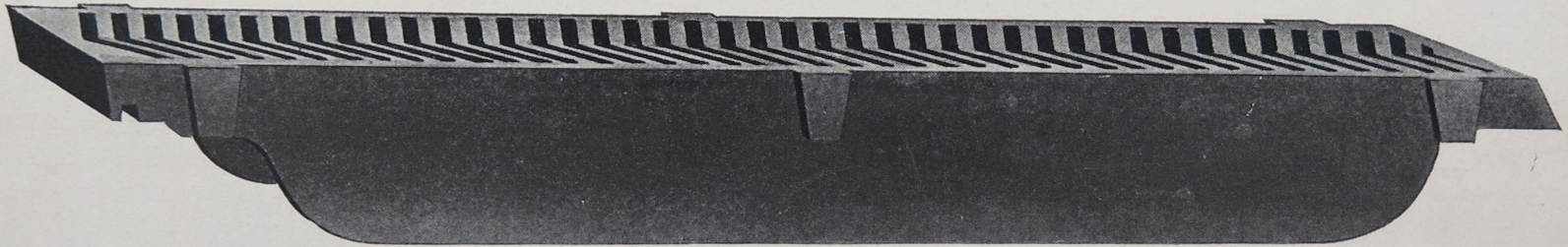
All Plate is Flange Steel, guaranteed by the makers to be 60,000 pounds tensile strength and to turn down double cold without fracture.



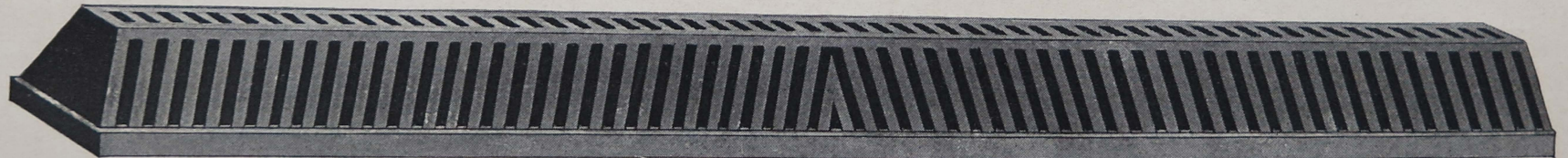
STANDARD.



TWO FINGER.



HERRING BONE.



SAWDUST.

ATLAS GRATE BARS.

ATLAS LOCOMOTIVE BOILERS.

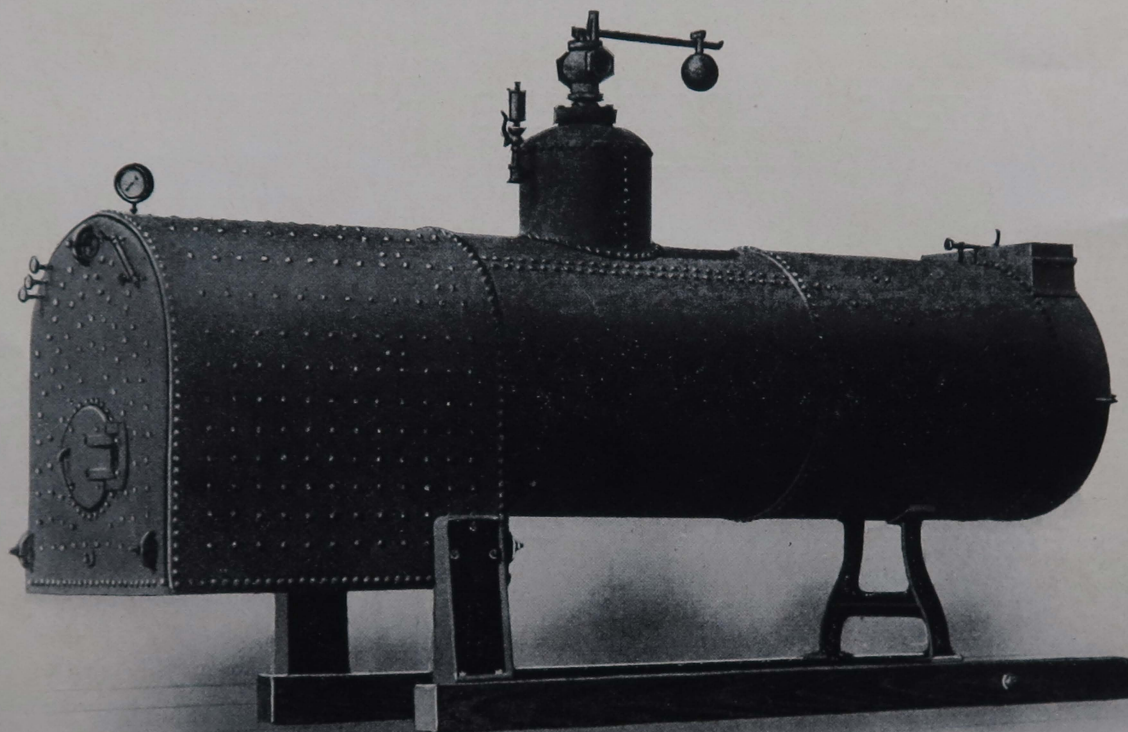
WITH OPEN BOTTOM.

The picture on page 24, with the specifications following, presents fully larger sizes of Locomotive Boilers than are contained in the Standard line shown on the pages immediately preceding.

This method of construction brings the whole Boiler closer to the ground, making it available in situations where height of ceiling is restricted and admits the use of a brick base, which can be so built as to form a pit for the reception of ashes.

The usual high grade of excellence in material and workmanship is maintained throughout.

Each Boiler is designed for a constant working pressure of 100 pounds, and a test of 150 pounds cold water pressure is applied before shipment.



ATLAS LOCOMOTIVE BOILER WITH OPEN BOTTOM. CLASS Q.

ATLAS LOCOMOTIVE BOILERS. CLASS Q.

WITH OPEN BOTTOM.

SPECIFICATIONS.

ESTIMATE NUMBER	NOMINAL RATED HORSE POWER	SHELL		FIRE BOX			DOME		SIZE OF STEAM OUTLET IN.	TUBES			TOTAL HEATING SURFACE SQ. FT.	STACK		SHIPPING WEIGHT Pounds Approximate		
		DIAM. IN.	LENGTH OVER ALL FT. IN.	LENGTH IN.	WIDTH IN.	HEIGHT IN.	DIAM. IN.	HEIGHT IN.		NO.	DIAM. IN.	LENGTH FT.		DIAM. IN.	LENGTH FT.	BOILER ONLY	FIXTURES ONLY	BOILER AND FIXTURES
50 Q	50	50	17 6	60	44	46	24	24	3	60	3	11	600	22	40	9500	2000	11500
60 Q	60	52	18 6	60	46	48	28	26	3½	68	3	12	725	24	40	10922	2078	13000
70 Q	70	54	19 6	60	48	50	28	26	3½	76	3	13	870	26	40	12670	2330	15000

Each Boiler, on Skids, is furnished with Dome, Grate Bars, Safety Valve, Steam Gage and Siphon, Glass Water Gage, and Gage Cocks, Check Valve, Stop Valve, Blow-Off Cock, Whistle, Smoke Stack and Guys.

Delivered on Cars at our Works in Indianapolis.

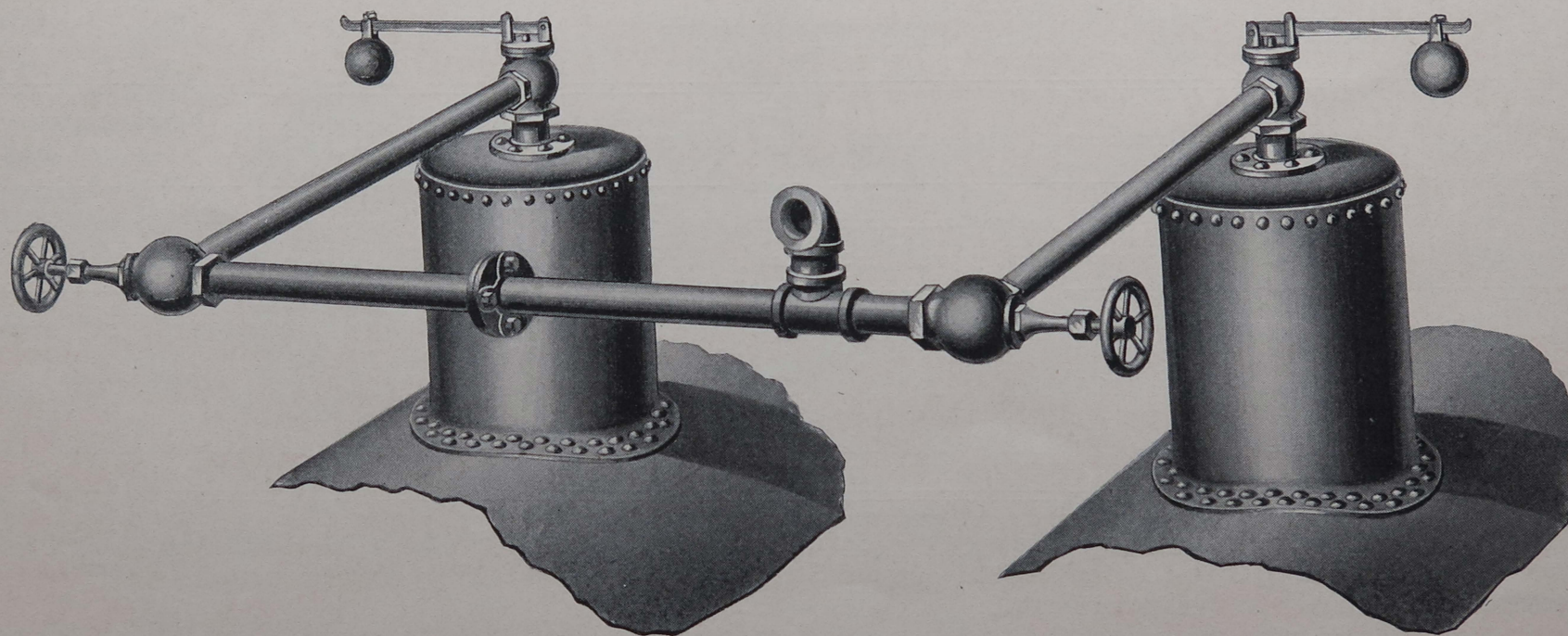
Everything furnished with the above Outfits is particularly mentioned in the Specifications. Anything else ordered will be charged for extra.

NOTE.

Fixed or Independent Domes, or Dry Pipes without Domes, can be furnished

Any of the above Boilers can be mounted on Wheels, when so ordered.

All Plate is Flange Steel, guaranteed by the makers to be 60,000 pounds tensile strength and to turn down double cold without fracture.



PIPE CONNECTIONS BETWEEN DOMES.

ATLAS INTERNAL FIRED BOILERS.

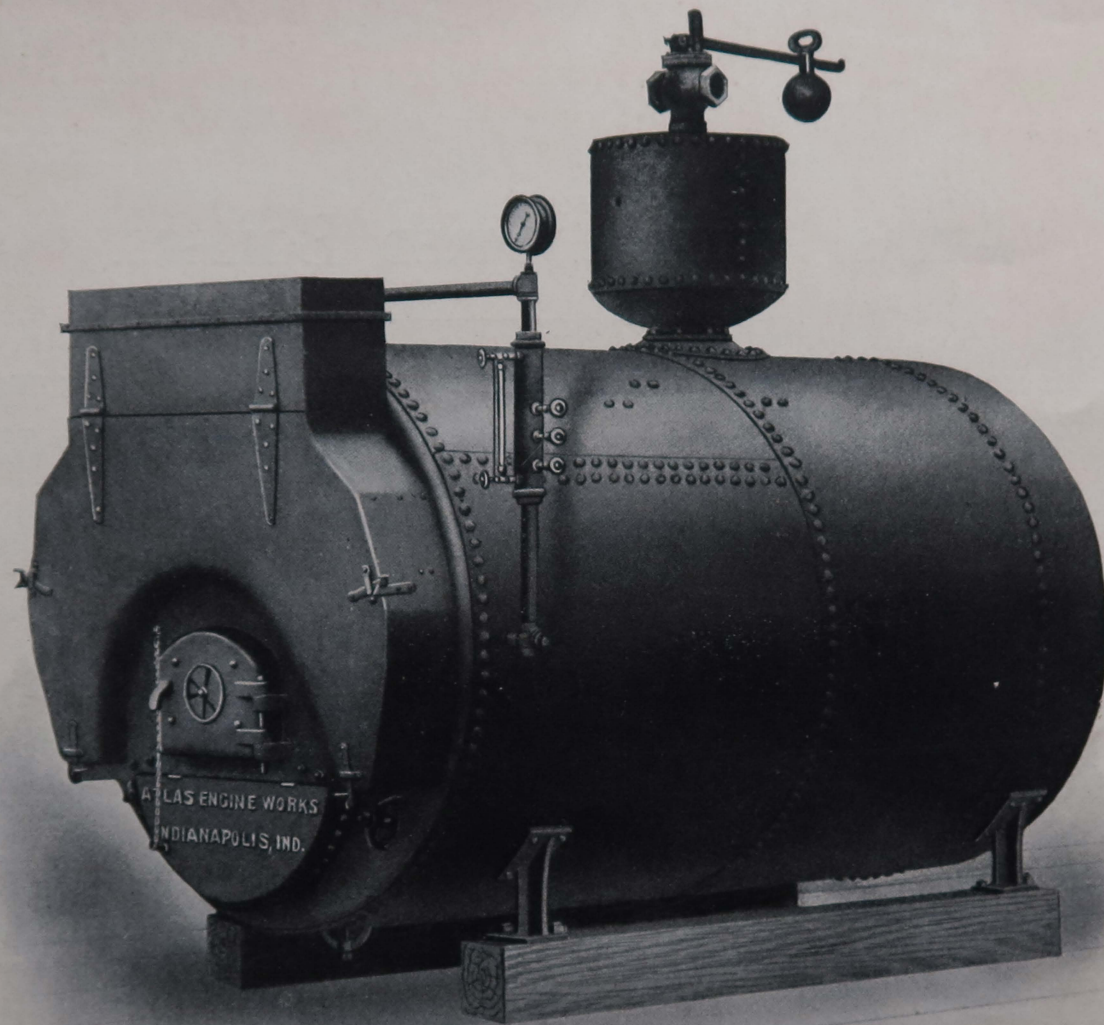
For conditions requiring a Boiler combining the advantages of a stationary or permanent setting with portable convenience, the engraving and specifications immediately following present a very attractive type.

It is self contained, sets close to the ground, is free from top heaviness and easily loaded for transportation.

The furnace is in the large flue entirely surrounded by water and connected with the return tubes at the rear. The design is calculated for freest circulation and rapid steaming qualities.

Taken as a whole, it combines in a marked degree safety, durability, simplicity, capacity, economy and portability.

Each Boiler is designed for a constant working pressure of 100 pounds, and a test of 150 pounds cold water pressure is applied before shipment.



ATLAS INTERNAL FIRED BOILER WITH INDEPENDENT DOME. CLASS Y.

ATLAS INTERNAL FIRED BOILERS. CLASS Y.

WITH INDEPENDENT DOME.

SPECIFICATIONS.

ESTIMATE NUMBER	NOMINAL RATED HORSE POWER	SHELL		FURNACE		MEAN THICKNESS			DOME		SIZE OF STEAM OUTLET IN.	RETURN TUBES			TOTAL HEATING SURFACE SQ. FT.	STACK		SHIPPING WEIGHT Pounds Approximate		
		DIAM. IN.	LENGTH OVER ALL FT. IN.	DIAM. IN.	LENGTH IN.	SHELL IN.	HEADS IN.	FLUE IN.	DIAM. IN.	HEIGHT IN.		NO.	DIAM. IN.	LENGTH FT.		DIAM. IN.	LENGTH FT.	BOILER ONLY	FIXTURES ONLY	BOILER AND FIXTURES
10 Y	10	40	9 7	20	30	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{3}{8}$	15	16	$1\frac{1}{2}$	16	3	8	138	12	25	4529	471	5000
15 Y	15	46	9 7	24	40	$\frac{1}{4}$	$\frac{7}{16}$	$\frac{3}{8}$	15	16	2	24	3	8	196	14	25	5513	687	6200
20 Y	20	52	9 7	26	46	$\frac{9}{32}$	$\frac{7}{16}$	$\frac{13}{32}$	15	16	2	30	3	8	240	16	25	6621	779	7400
25 Y	25	56	9 7	28	50	$\frac{9}{32}$	$\frac{1}{2}$	$\frac{13}{32}$	18	20	$2\frac{1}{2}$	38	3	8	300	18	30	7555	1045	8600
30 Y	30	60	9 7	30	50	$\frac{5}{16}$	$\frac{1}{2}$	$\frac{7}{16}$	20	22	$2\frac{1}{2}$	47	3	8	362	20	30	8818	1182	10000
40 Y	40	66	9 7	34	56	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	24	24	3	68	3	8	496	24	30	10513	1387	12100

Each Boiler, on Skids, is furnished with Dome, Grate Bars, Safety Valve, Steam Gage and Siphon, Glass Water Gage and Gage Cocks, Check Valve, Stop Valve, Blow-Off Cock, Whistle, Smoke Stack and Guys.

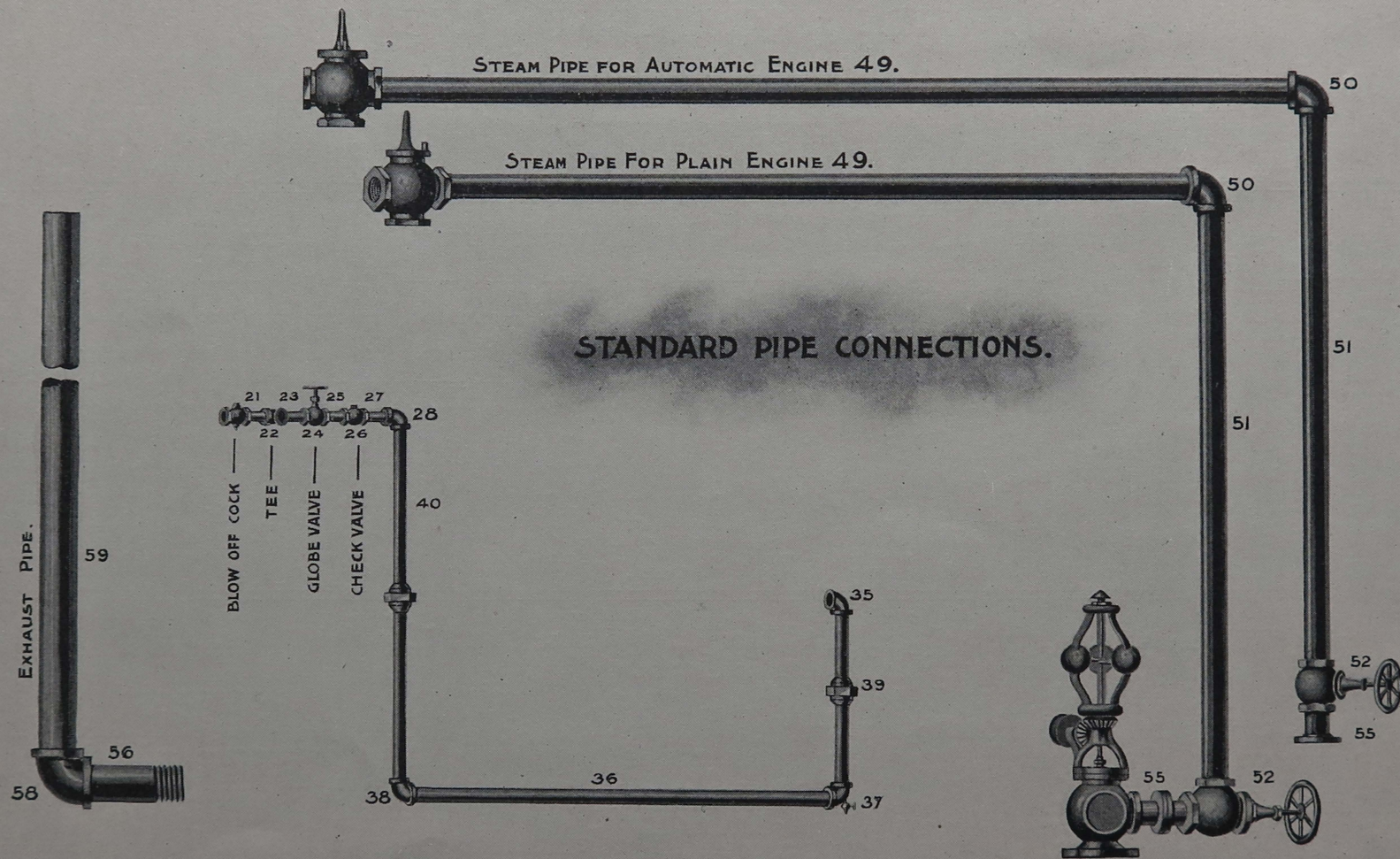
Delivered on cars at our Works in Indianapolis.

Everything furnished with the above Outfits is particularly mentioned in the Specifications. Anything else ordered will be charged for extra.

NOTE.

Independent Domes, or Dry Pipes without Domes, can be furnished.

All Plate is Flange Steel, guaranteed by the makers to be 60,000 pounds tensile strength and to turn down double cold without fracture.

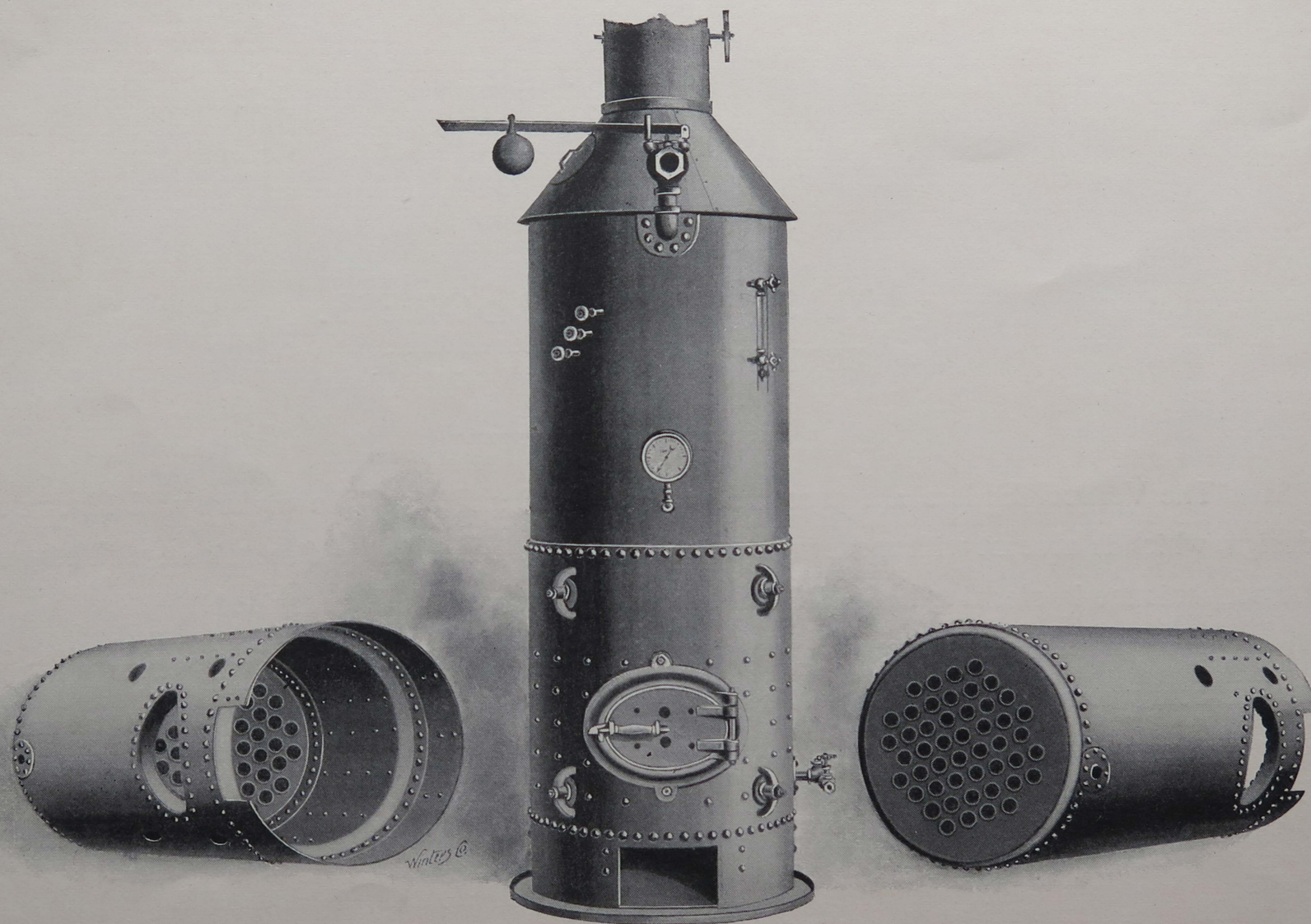


ATLAS VERTICAL BOILERS.

WITH FULL LENGTH TUBES.

The Vertical Boilers are presented on pages 32 and 33. The picture well illustrates the design, which is abreast with modern practice. The fire box is full in dimensions, well stayed, and for convenience in cleaning hand holes above and below are liberally provided.

Each Boiler is designed for a constant working pressure of 100 pounds, and a test of 150 pounds cold water pressure is applied before shipment.



ATLAS VERTICAL BOILER WITH FULL LENGTH TUBES. CLASS Z.

ATLAS VERTICAL BOILERS. CLASS Z.

WITH FULL LENGTH TUBES.

SPECIFICATIONS.

ESTIMATE NUMBER	NOMINAL RATED HORSE POWER	SHELL		FIRE BOX		MEAN THICKNESS		SIZE OF STEAM	TUBES			TOTAL HEATING	STACK		SHIPPING WEIGHT Pounds Approximate			
		DIAM. IN.	HEIGHT OVER ALL FT. IN.	DIAM. IN.	HEIGHT IN.	SHELL IN.	HEADS IN.	OUTLET IN.	NO.	DIAM. IN.	LENGTH		SURFACE SQ. FT.	DIAM. IN.	LENGTH FT.	BOILER ONLY	FIXTURES ONLY	BOILER AND FIXTURES
											FT.	IN.						
6 Z	6	28	5 10	23 1/2	27	1/4	3/8	1 1/4	42	2	2	8	75	10	15	1209	391	1600
8 Z	8	30	6 5	25 1/2	27	1/4	3/8	1 1/2	48	2	3	3	99	12	15	1446	454	1900
10 Z	10	30	7 4	25 1/2	27	1/4	3/8	1 1/2	48	2	4	2	122	12	20	1593	507	2100
15 Z	15	34	7 8	29 1/2	27	1/4	3/8	2	70	2	4	6	186	14	25	2058	642	2700
20 Z	20	36	8 9	31 1/2	27	1/4	3/8	2	76	2	5	7	245	15	25	2645	755	3400
25 Z	25	38	9 3	33 1/2	27	1/4	3/8	2 1/2	88	2	6	1	304	16	30	3153	947	4100

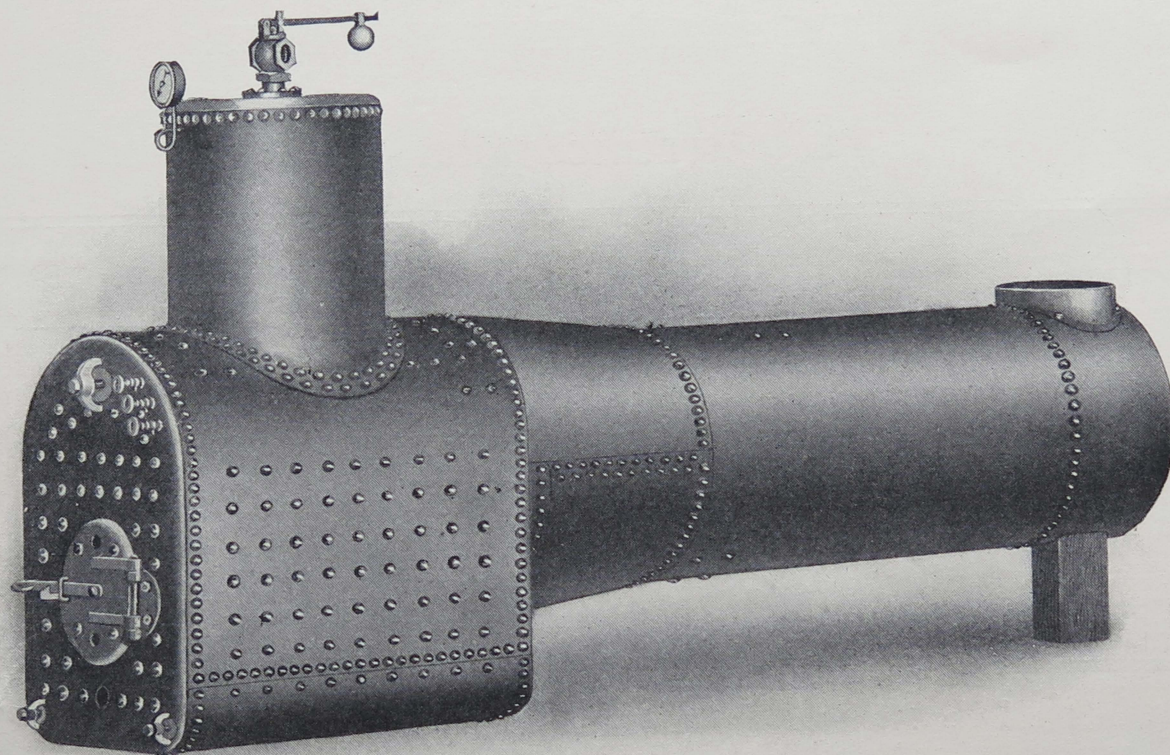
Each Boiler, on Cast Iron Base Plate, is furnished with Grate Bars, Safety Valve, Steam Gage and Siphon, Glass Water Gage and Gage Cocks, Check Valve, Stop Valve, Blow-Off Cock, Smoke Stack, Hood and Guys.

Delivered on cars at our Works in Indianapolis.

Everything furnished with the above Outfits is particularly mentioned in the Specifications. Anything else ordered will be charged for extra.

NOTE.

All Plate is Flange Steel, guaranteed by the makers to be 60,000 pounds tensile strength and to turn down double cold without fracture.



ATLAS LOCOMOTIVE BOILER
WITH
CONTRACTED WAIST AND OPEN BOTTOM.

ATLAS LOCOMOTIVE BOILERS

WITH CONTRACTED WAISTS AND OPEN BOTTOMS.

SPECIFICATIONS.

ESTIMATE NUMBER	NOMINAL RATED HORSE POWER	SHELL		FIRE BOX			DOME		SIZE OF STEAM OUTLET IN.	TUBES			TOTAL HEATING SURFACE SQ. FT.	STACK		SHIPPING WEIGHT Pounds Approximate		
		DIAM. IN.	LENGTH OVER ALL FT. IN.	LENGTH IN.	WIDTH IN.	HEIGHT IN.	DIAM. IN.	HEIGHT IN.		NO.	DIAM. IN.	LENGTH FT. IN.		DIAM. IN.	LENGTH FT.	BOILER ONLY	FIXTURES ONLY	BOILER AND FIXTURES
	20	36	13 10 $\frac{1}{4}$	49 $\frac{1}{4}$	36	38	30	32	2	36	3	8.0	280	18	22	5600	650	6250
	25	40	13 10 $\frac{1}{4}$	49 $\frac{1}{4}$	40	41	32	32	2 $\frac{1}{2}$	45	3	8.0	336	20	22	6450	750	7200

Each Boiler is furnished with Dome, Grate Bars, Safety Valve, Steam Gage and Siphon, Gage Cocks, Check Valve, Stop Valve, Blow-Off Cock, Smoke Stack and Guy Rods.

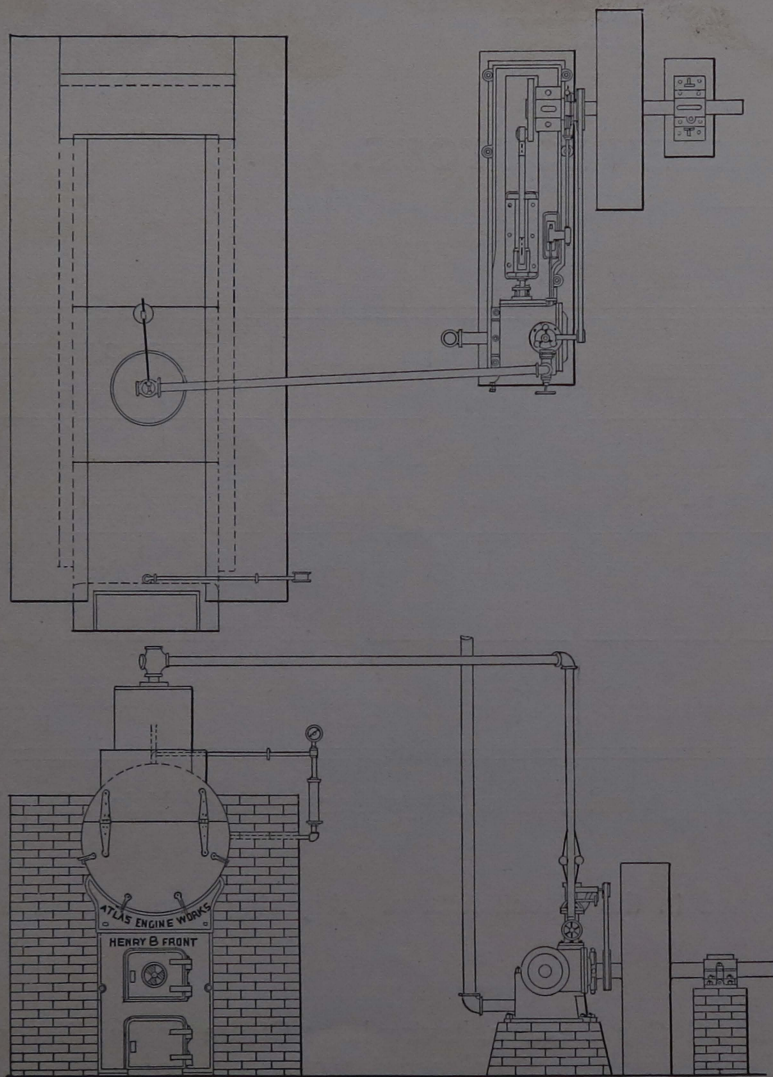
Delivered on Cars at our Works in Indianapolis.

Everything furnished with the above Outfits is particularly mentioned in the Specifications. Anything else ordered will be charged for extra.

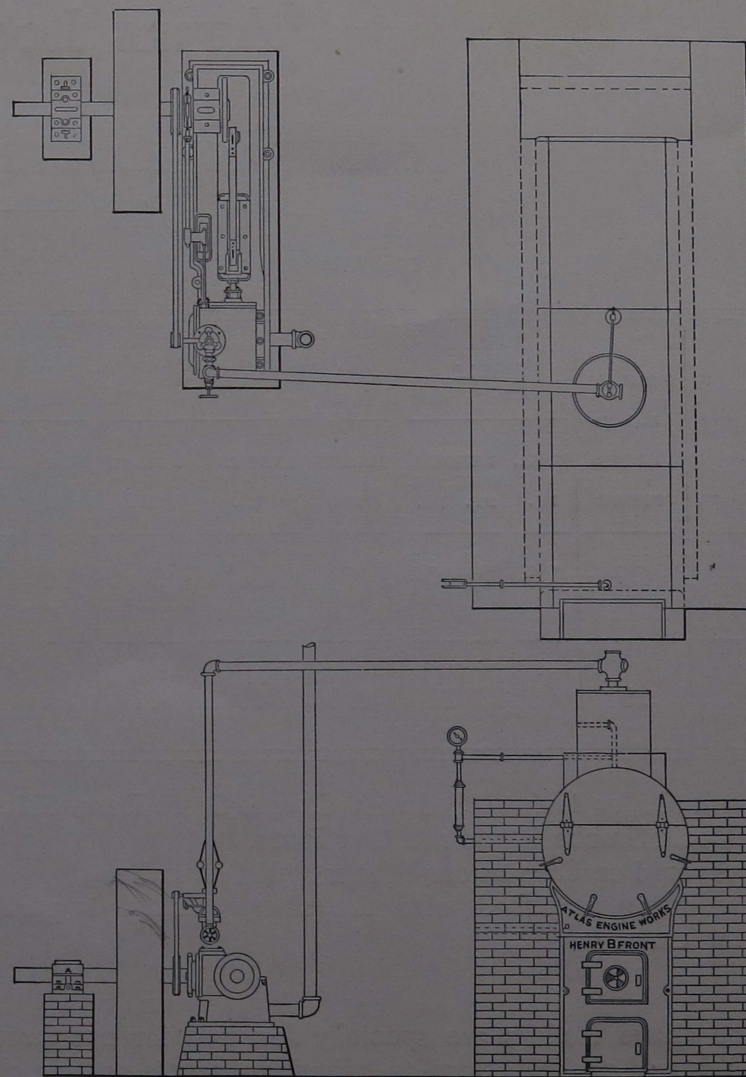
NOTE.

The above Boilers are specially designed for use throughout the Oil and Gas Regions, having large Steam Space, Flanged and Enlarged Water Leg at bottom to afford an ample settling chamber, Hand Holes conveniently placed for cleaning. Longitudinal Seams double riveted, all Flat Surfaces liberally stayed and braced, Fire Door Opening flanged.

All Plate is Flange Steel, guaranteed by the makers to be 60,000 pounds tensile strength and to turn down double cold without fracture.



RIGHT HAND SETTING.

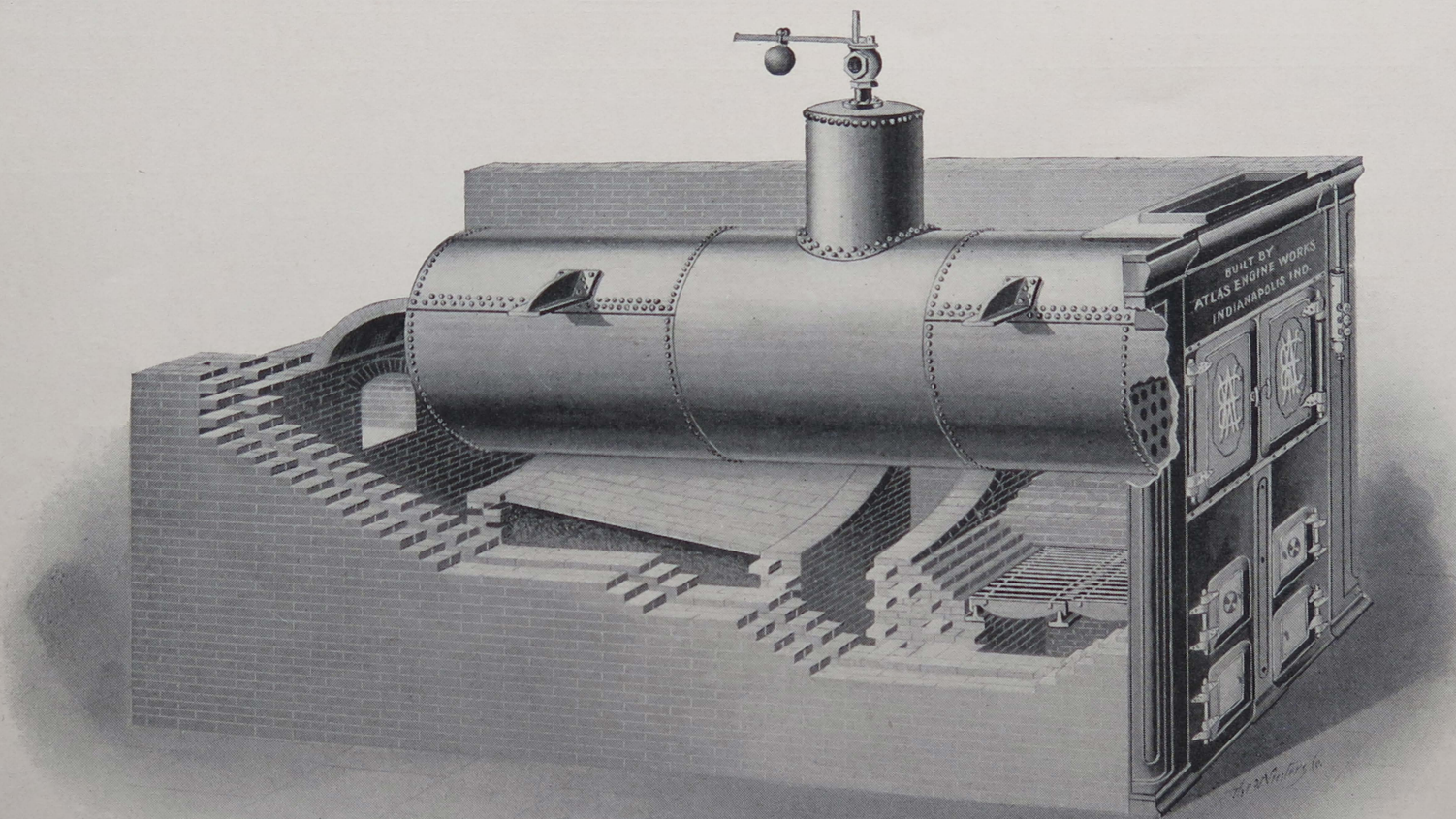


LEFT HAND SETTING.

MATERIALS FOR ATLAS STANDARD BOILER SETTINGS.

BOILERS		SINGLE SETTING						DOUBLE SETTING						TRIPLE SETTING					
		COMMON	FIRE	SAND	CEMENT	LIME	FIRE	COMMON	FIRE	SAND	CEMENT	LIME	FIRE	COMMON	FIRE	SAND	CEMENT	LIME	FIRE
IN.	FT.	BRICK	BRICK	BUSHEL	BBLS.	BBLS.	CLAY LBS.	BRICK	BRICK	BUSHEL	BBLS.	BBLS.	CLAY LBS.	BRICK	BRICK	BUSHEL	BBLS.	BBLS.	CLAY LBS.
36 x 8		7600	660	60	7 1/2	3	396	11850	1300	95	12	4 3/4	780	16000	1900	130	16	6	1200
36 x 10		8600	750	70	8 1/2	3 1/2	450	13250	1500	106	13 1/4	5 1/2	900	18000	2200	140	18	7 1/2	1300
36 x 12		9800	820	78	10	4	492	15000	1650	120	15	6	990	20000	2500	160	20	8	1500
40 x 12		10000	850	80	10	4	510	15500	1690	124	15 1/2	6 1/4	1014	20500	2500	170	21	8 1/2	1500
42 x 12		10300	850	83	10 1/2	4 1/4	510	16000	1700	128	16	6 1/2	1020	22000	2500	175	22	9	1550
46 x 12		11000	960	88	11	4 1/2	576	17300	1920	138	17 1/2	7	1152	23000	2800	185	24	9 1/2	1700
46 x 20		15000	1400	120	15	7	840	23300	2800	186	23	12	1680	31000	4120	248	31	15 1/2	2500
48 x 12		11200	1000	90	11 1/4	4 1/2	600	17700	2000	142	17 3/4	7	1200	24000	3000	190	25	9 1/2	1800
48 x 14		12100	1090	97	12 1/4	4 3/4	650	18750	2180	150	18 3/4	7 1/2	1308	25200	3270	200	25 1/2	10	1960
48 x 20		15200	1600	122	15 1/4	7 1/2	960	23700	3200	190	24	12	1920	32000	4800	256	32	16	2800
52 x 14		12300	1160	98	12 1/2	5	696	19250	2320	154	19 1/4	7 3/4	1392	26000	3500	210	26	10 1/2	2000
54 x 14		12400	1260	100	12 1/2	5	756	19500	2520	156	19 1/2	8	1512	27000	3800	212	27	11	2300
54 x 16		13200	1350	106	13 1/4	5 1/4	810	20500	2700	164	20 1/2	8 1/4	1620	28000	4000	220	28	11 1/2	2450
56 x 20		15150	1600	121	15	7 1/2	960	23350	3200	187	23 1/3	11 1/2	1920	31800	4750	254	32	16	2850
60 x 14		12700	1260	102	12 3/4	5 1/4	756	20000	2500	160	20	8	1500	27500	3850	218	27 1/2	11	2300
60 x 16		14100	1380	113	14	5 1/2	828	22000	2760	176	22	9	1656	30000	4100	230	30	12 1/2	2500
60 x 20		16150	1650	129	16	8	990	25000	3300	200	25	12 1/2	1980	34000	5000	272	34	17	3000
66 x 16		14850	1680	119	15	6	1008	23400	3360	187	23 1/2	9 1/2	2016	32000	5000	250	32	13	3000
66 x 20		17000	1950	136	17	8 1/2	1170	26500	3900	212	26 1/2	13 1/4	2340	36000	5800	288	36	18	3480
72 x 16		15250	1750	122	15 1/4	6 1/4	1050	24250	3500	194	24 1/4	10	2100	33500	5750	266	34	14	3200
72 x 18		16300	1940	130	16 1/2	8 1/4	1164	25750	3880	206	25 3/4	13	2328	35500	5600	284	35 1/2	17 3/4	3360
72 x 20		17300	2130	138	17 1/2	8 3/4	1278	27250	4250	218	27 1/4	13 3/4	2550	37400	6200	300	37 1/2	18 3/4	3720

NOTE—The estimates of materials for Double and Triple Settings provide for placing the Boilers INDEPENDENTLY with dividing wall between them.



BOILER SETTING WITH ORNAMENTAL FULL SQUARE FRONT.

Franklin Company
Designers, Engravers and Printers
Chicago

